

Colorado Department of Public Health and Environment

OPERATING PERMIT

University of Colorado at Boulder Williams Village

First Issued: December 1, 1998

AIR POLLUTION CONTROL DIVISION COLORADO OPERATING PERMIT

FACILITY NAME: Williams Village OPERATING PERMIT NUMBER

FACILITY ID: 0130019

RENEWED: August 1, 2010 EXPIRATION DATE: August 1, 2015

MODIFICATIONS: See Appendix F of Permit

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO: PLANT SITE LOCATION:

University of Colorado at Boulder

UCB 319
Williams Village
1060 18th Street, ENVD 1B-90
Boulder, CO 80309-0319
Boulder, CO 80309-0319
Boulder County

INFORMATION RELIED UPON

Operating Permit Renewal Application Received: July 27, 2007

And Additional Information Received: January 16, 2009, December 29, 2009

January 7, 2010, February 24, 2010, March 25, 2010

96OPBO174

Nature of Business: Heating and Air Conditioning

Primary SIC: 4961

RESPONSIBLE OFFICIAL FACILITY CONTACT PERSON

Name: Bryan Birosak Name: Jeffrey Fisher Title: Director, Utilities Services Title: Plant Manager

Phone: (303) 735-4981 Phone: (303) 492-7973

SUBMITTAL DEADLINES -

Semi-Annual Monitoring Period: August 1 – January 31, February 1 – July -31

Semi-Annual Monitoring Report: March 1, 2011 & September 1, 2011 and subsequent years

Annual Compliance Period: August 1 to July 31

Annual Compliance Certification: September 1, 2011 and subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance report must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports.

TABLE OF CONTENTS:

SECT	ION I - General Activities and Summary	1
1.	Permitted Activities	
2.	Alternative Operating Scenarios	2
3.	Non-Attainment New Source Review (NANSR) and Prevention of Significant Deterioration (PSD)	2
4.	Accidental Release Prevention Program (112(r))	
5.	Compliance Assurance Monitoring (CAM)	
6.	Summary of Emission Units	
SECTI	ION II - Specific Permit Terms	
1.	Facility-Wide Emission Limits for Units B001 and B002 – Babcock and Wilcox Boilers (Natural Gas or No. 2 Fuel Oil Fired)	4
2.	Units B001 and B002 – Babcock and Wilcox Boilers (Natural Gas Fired)	5
3.	Units B001 and B002 – Babcock and Wilcox Boilers (No. 2 Fuel Oil Fired)	7
SECTI	ION III - Permit Shield	
1.	Specific Non-Applicable Requirements	
2.	General Conditions	
3.	Streamlined Conditions	12
SECTI	ION IV - General Permit Conditions (ver 7/21/2009)	13
1.	Administrative Changes	13
2.	Certification Requirements	13
3.	Common Provisions	13
4.	Compliance Requirements	17
5.	Emergency Provisions	18
6.	Emission Controls for Asbestos	18
7.	Emissions Trading, Marketable Permits, Economic Incentives	
8.	Fee Payment	
9.	Fugitive Particulate Emissions	19
10.	Inspection and Entry	
11.	Minor Permit Modifications	
12.	New Source Review	
13.	No Property Rights Conveyed	
14.	Odor	
15.	Off-Permit Changes to the Source	
16.	Opacity	
17.	Open Burning	
18.	Ozone Depleting Compounds	
19.	Permit Expiration and Renewal	
20.	Portable Sources	
21.	Prompt Deviation Reporting	
22.	Record Keeping and Reporting Requirements	
23.	Reopenings for Cause	
24.	Section 502(b)(10) Changes	
25.	Severability Clause	
26.	Significant Permit Modifications	
27.	Special Provisions Concerning the Acid Rain Program	23

TABLE OF CONTENTS:

28.	Transfer or Assignment of Ownership	23
29.	Volatile Organic Compounds	
30.	Wood Stoves and Wood burning Appliances	24
APPEN	NDIX A - Inspection Information	26
1.	Directions to Plant:	
2.	Safety Equipment Required:	26
3.	Facility Plot Plan:	26
4.	List of Insignificant Activities:	26
APPEN	NDIX B	28
	orting Requirements and Definitions	
	itoring and Permit Deviation Report - Part I	
	itoring and Permit Deviation Report - Part II	
Moni	itoring and Permit Deviation Report - Part III	35
APPEN	NDIX C	36
Requ	nired Format for Annual Compliance Certification Reports	36
APPEN	NDIX D	39
	fication Addresses	
APPEN	NDIX E	40
	nit Acronyms	
APPEN	NDIX F	42
	nit Modifications	
APPEN	NDIX G	43
	ulations for No. 2 Fuel Oil	

SECTION I - General Activities and Summary

1. Permitted Activities

1.1 The University of Colorado (CU) at Boulder consists of a Power House, a service building, a heating plant for a dormitory known as Williams Village, and miscellaneous insignificant activities around campus. CU requested separate Operating Permits for the Power House and the heating plant for Williams Village. The service building is classified as an insignificant source of emissions. The heating plant at Williams Village generates steam for use in heating and air conditioning using two water tube boilers. The boilers have the capability to fire either natural gas or No. 2 fuel oil.

The facility is located at 3200 Baseline Road in Boulder, Colorado. This facility is located in the Denver Metro Area. The Denver Metro Area is classified as attainment/maintenance for particulate matter less than 10 microns in diameter (PM_{10}) and carbon monoxide (CO). Under that classification, all SIP-approved requirements for PM_{10} and CO will continue to apply in order to prevent backsliding under the provisions of Section 110(l) of the Federal Clean Air Act. The Denver Metro Area is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.1. There are no affected states within 50 miles of the plant. The Federal Class I designated areas within 100 kilometers of the plant are Rocky Mountain National Park, Rawah Wilderness Area, and Eagle's Nest Wilderness Area.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 The Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this Operating Permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: None (all grandfathered units).
- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section IV Conditions 3.d, 3.g (last paragraph), 14 & 18 (as noted).
- 1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit. Either electronic or hard copy records are acceptable.

Operating Permit 96OPBO174 First Issued: December 1, 1998

2. Alternative Operating Scenarios

- 2.1 The permittee shall be allowed to make the following changes to its method of operation without applying for a revision of this permit.
 - 2.1.1 No separate operating scenarios have been specified.
- 3. Non-Attainment New Source Review (NANSR) and Prevention of Significant Deterioration (PSD)
- 3.1 The following Operating Permits are associated with this facility for purposes of determining the applicability of the NANSR and PSD regulations: University of Colorado at Boulder, Power House (Operating Permit No. 95OPBO059).

This facility is categorized as a NANSR major stationary source (Potential to Emit of $NO_x > 100$ Tons/Year). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) for VOC or NOx or a modification which is major by itself (Potential to Emit of ≥ 100 TPY of either VOC or NOx) may result in the application of the NANSR review requirements.

This facility is categorized as a PSD major stationary source (Potential to Emit > 100 Tons/Year for NO_x , CO and SO_2). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) or a modification which is major by itself (Potential to Emit of \geq 100 TPY) for any pollutant listed in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements

4. Accidental Release Prevention Program (112(r))

4.1 Based upon the information provided by the applicant, this facility is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act).

5. Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

None

First Issued: December 1, 1998

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

Facility Identifier	AIRS ID	Description	Pollution Control
B001	001	Babcock and Wilcox Boiler, Model FM-1278, S/N: Natl. Board 22030 Co. State 15577, 37.5 MMBtu/hr, Natural Gas or No. 2 Fuel Oil.	None
B002	005	Babcock and Wilcox Boiler, Model FM-1835, S/N: Natl. Board 23144 Co. State 18651, 39.5 MMBtu/hr, Natural gas or No. 2 Fuel Oil.	None

First Issued: December 1, 1998

SECTION II - Specific Permit Terms

1. Facility-Wide Emission Limits for Units B001 and B002 – Babcock and Wilcox Boilers (Natural Gas or No. 2 Fuel Oil Fired)

	Permit Condition	Limitation	Compliance Emission Factor	Monitori	ng
Parameter	Number		Emission ractor	Method	Interval
NO_X	1 1	43.0 tons/year		Recordkeeping and	Monthly
SO_2	1.1	47.0 tons/year	Conditions 2 and 3	Calculation	Wionany

1.1 Total emissions of air pollutants from the two boilers shall not exceed the limits listed in the table above. Compliance with the annual limits shall be determined on a rolling twelve (12) month total. By the end of each month a new twelve-month total is calculated based on the previous twelve months' data. (Colorado Regulation No. 3, Part B, III.A.4) Monthly emissions shall be estimated using the emission factors listed in Section II, Conditions 2 and 3, actual natural gas and fuel oil use, and the sulfur content as measured in accordance with Section II, Condition 3.5. A record of calculations shall be maintained for Division inspection upon request.

First Issued: December 1, 1998

2. Units B001 and B002 – Babcock and Wilcox Boilers (Natural Gas Fired)

Limitations apply to each boiler unless otherwise stated below

	Permit Condition	Limitation	Compliance Emission Factor	Monitori	ng
Parameter	Number		ractor	Method	Interval
Emission Calculations	2.1		$\begin{aligned} NO_x - 100 \text{ lb/MMscf} \\ CO - 84 \text{ lb/MMscf} \\ VOC - 5.5 \text{ lb/MMscf} \\ SO_2 - 0.6 \text{ lb/MMscf} \\ PM - 7.6 \text{ lb/MMscf} \\ PM_{10} - 7.6 \text{ lb/MMscf} \end{aligned}$	Recordkeeping & Calculation	Monthly
PM	2.2	0.19 lb/MMBtu		Fuel Restric	ction
Fuel Use	2.3			Recordkeeping	Monthly
Opacity	2.4 & 2.5	Not to exceed 20% Except as Provided for Below For Certain Operational Activities - Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes		See Conditions 2	2.4 & 2.5

2.1 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from each unit (EPA Compilation of Air Pollutant Emission Factors (AP-42), Tables 1.4-1 and 2, July 1998). Natural gas usage shall be used to determine monthly emissions using the emission factors in the following equation:

$$\frac{Tons}{Month} = Compliance \ Emission \ Factor \left(\frac{lb}{MMscf}\right) \times Monthly \ Recorded \ Fuel \ Use \left(\frac{MMscf}{month}\right) \times \left(\frac{ton}{2000 \ lb}\right)$$

Records of the calculations shall be maintained for Division inspection upon request.

2.2 Particulate Matter emissions from **each boiler** shall not exceed the standard as stated in the above table. For each unit, allowable emissions of PM in lb/MMBtu were calculated using the following equation (Colorado Regulation No. 1, Section III.A.1.b):

$$PE = 0.5 \text{ x FI}^{-0.26} \text{ lb/MMBtu}$$
 Where
$$FI = Fuel \text{ Input in MMBtu/hr}$$

First Issued: December 1, 1998

In the absence of credible evidence to the contrary, compliance with the particulate matter emission limit is presumed during periods that only natural gas is burned as fuel in the boilers.

- 2.3 Natural gas usage shall be recorded on a monthly basis. Records of actual natural gas consumption shall be maintained and made available for Division inspection upon request.
- 2.4 Except as provided for in Condition 2.5 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. This standard is based on 24 consecutive opacity readings taken at 15-second intervals for six minutes. The approved reference test method for visible emissions measurement on which these standards are based is EPA Method 9 (40 CFR Part 60, Appendix A (July, 1992)) in all subsections of Section II.A of Regulation No. 1 (Colorado Regulation No. 1, Section II.A.1). This opacity standard applies to **each boiler**.
 - In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed during periods that only natural gas is burned as fuel in the boilers.
- 2.5 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4). This opacity standard applies to **each boiler.**

In the absence of credible evidence to the contrary, compliance with the 30% opacity limit shall be presumed during periods that only natural gas is burned as fuel in the boilers.

3. Units B001 and B002 – Babcock and Wilcox Boilers (No. 2 Fuel Oil Fired)

Limitations apply to each boiler unless otherwise stated below

	Permit Condition	Limitation	Compliance Emission Factor	Monitor	ing
Parameter	Number		Factor	Method	Interval
Emission Calculations	3.1		$\begin{aligned} NO_x - 20 & \text{ lb/1000 gal} \\ CO - 5 & \text{ lb/1000 gal} \\ VOC - 0.2 & \text{ lb/1000 gal} \\ PM - 3.3 & \text{ lb/1000 gal} \\ PM_{10} - 1.65 & \text{ lb/1000} \\ \text{gal} \end{aligned}$	Recordkeeping & Calculation	Monthly
PM	3.2	0.19 lb/MMBtu		Fuel Restri	ction
SO_2	3.3	1.5 lb/MMBtu		See Conditi	on 3.3
Fuel Use	3.4			Recordkeeping	Monthly
Sulfur Content of Fuel	3.5	Not to exceed 0.05% by weight		Vendor certification	Each fuel oil shipment
Opacity	3.6 and 3.7	Not to exceed 20% Except as Provided for Below For Certain Operational Activities - Not to Exceed 30%, for a Period or Periods Aggregating More than Six (6) Minutes in any 60 Consecutive Minutes		See Conditions	3.6 and 3.7
SO ₂ Emission Calculations	3.8			See Condition 3.8	

3.1 The emission factors listed above have been approved by the Division and shall be used to calculate emissions from each unit (EPA Compilation of Air Pollutant Emission Factors (AP-42), Tables 1.3-1, 2 and 5, September 1998). No. 2 Fuel Oil usage shall be used to determine monthly emissions using the emission factors in the following equation:

$$\frac{Tons}{Month} = Compliance \ Emission \ Factor \left(\frac{lb}{1000 \ gal}\right) \times Monthly \ Recorded \ Fuel \ Use \left(\frac{1000 \ gal}{month}\right) \times \left(\frac{ton}{2000 \ lb}\right)$$

Records of the calculations shall be maintained for Division inspection upon request.

Operating Permit 96OPBO174 Renewed: August 1, 2003 & August 1, 2010 3.2 Particulate Matter emissions from **each boiler** shall not exceed the standard as stated in the above table. For each unit, allowable emissions of PM in lb/MMBtu were calculated using the following equation (Colorado Regulation No. 1, Section III.A.1.b):

> $PE = 0.5 \times FI^{-0.26} \text{ lb/MMBtu}$ FI = Fuel Input in MMBtu/hr Where

In the absence of credible evidence to the contrary, compliance with the particulate matter emission limit is presumed during periods that only No. 2 Fuel Oil is burned as fuel in the boilers.

3.3 SO₂ emissions shall not exceed the standard stated above (Colorado Regulation No. 1, Section VI.A.3.b.i).

Compliance with the SO₂ standard for the fuel in **each fuel tank/boiler** shall be monitored as follows:

- For periods of No. 2 Fuel Oil combustion beginning on the effective date of this permit and ending on the first delivery of additional No. 2 Fuel Oil, compliance with the standard shall be presumed, in absence of credible evidence to the contrary, based on the SO₂ emission factor listed in Condition 3.8.1 and a heat value of the existing fuel oil supply of 131,622 Btu/gal (see Appendix G for details).
- After the first delivery of additional No. 2 Fuel Oil, compliance with the standard shall be presumed, in absence of credible evidence to the contrary, based on an SO₂ emission factor of 14.91 lbs per 1000 gallons or less (as per Condition 3.8.2), and an assumed heat value of the fuel in the tank of no less than 15,500 Btu/gal (see Appendix G for details).
- After the second delivery of additional No. 2 Fuel Oil, compliance with the standard shall be presumed, in absence of credible evidence to the contrary, based on an SO₂ emission factor of 7.1 lbs per 1000 gallons (as per Condition 3.8.3), and an assumed heat value of the fuel delivered of no less than 15,500 Btu/gal (see Appendix G for details).
- 3.4 No. 2 Fuel Oil usage shall be recorded on a monthly basis. Records of actual fuel usage shall be maintained and made available for Division inspection upon request.
- 3.5 No. 2 Fuel Oil shall have a sulfur content no greater than 0.05% by weight. Compliance with the sulfur content limit shall be based on the fuel supplier's certification for each shipment of fuel oil. (Incorporated directly into this operating permit, in accordance with Section I, Condition 1.3 of this permit). This condition shall not apply to fuel oil received prior to the effective date of this permit.
- 3.6 Except as provided for in Condition 3.7 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity. This standard is based on 24 consecutive opacity readings taken at 15-second intervals for six minutes. The approved reference test method for visible emissions measurement on which these standards are based is EPA Method 9 (40 CFR Part 60, Appendix A (July, 1992)) in all subsections of Section II.A of Regulation No. 1 (Colorado Regulation No. 1, Section II.A.1). This opacity standard applies to **each boiler**.

Operating Permit 96OPBO174 First Issued: December 1, 1998 Compliance with this standard shall be monitored by conducting emissions observations in accordance with EPA Reference Method 9 as follows:

- 3.6.1 A Method 9 observation shall be conducted within 24 hours of completion of startup, once per calendar quarter. If startup does not occur during the quarter, then no Method 9 observations are required.
- 3.6.2 If fuel oil is burned continuously for seven (7) days, a Method 9 observation shall be conducted on the seventh day. Subsequent observations shall be taken every seven (7) days thereafter, provided that fuel oil is burned continuously.
- 3.6.3 If fuel oil is not burned then no Method 9 observations are required.

Method 9 observations shall be performed by a certified observer. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit. Results of Method 9 readings and a copy of the certified Method 9 reader's certification shall be kept on site and made available to the Division upon request.

3.7 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Regulation No. 1, Section II.A.4). This opacity standard applies to **each boiler.**

Compliance with this standard shall be monitored by conducting visual emission observations in accordance with EPA Reference Method 9 as follows:

- 3.7.1 A Method 9 observation shall be conducted once per year. This annual observation shall be taken within one (1) hour of the commencement of startup and every 24 hours thereafter until startup is completed.
- 3.7.2 If fuel oil is not burned then no Method 9 observations are required.

Method 9 observations shall be performed by a certified observer. Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit. Results of Method 9 readings and a copy of the certified Method 9 reader's certification shall be kept on site and made available to the Division upon request.

3.8 The following emission factors for SO₂ listed below have been approved by the Division and shall be used to calculate emissions from each unit (EPA Compilation of Air Pollutant Emission Factors (AP-42), Table 1.3-1, September 1998).

Operating Permit 96OPBO174

First Issued: December 1, 1998

- For periods of No. 2 Fuel Oil combustion beginning on the effective date of this permit and ending on the first delivery of additional No. 2 Fuel Oil, the SO₂ emission factor is **14.91 lbs per 1,000 gallons** (based on a Sulfur content of existing fuel oil supply of 0.105 wt% and an AP-42 SO₂ emission factor of 142S, where S is the weight percent of sulfur in the fuel).
- 3.8.2 After the first delivery of additional No. 2 Fuel Oil, the SO₂ emission factor for the fuel in **each** tank shall be calculated as one of the following:
 - 3.8.2.1 If the delivery of No. 2 Fuel Oil to the tank consists of 18,200 gallons or more, the SO₂ emission factor is **7.1 lbs per 1,000 gallons** (based on a Sulfur content of the new fuel delivery of 0.05 wt% or less, total tank capacity of 20,000 gallons and an AP-42 SO₂ emission factor of 142S, where S is the weight percent of sulfur in the fuel).
 - 3.8.2.2 If the delivery of No. 2 Fuel Oil to the tank consists of less than 18,200 gallons, the SO₂ emission factor shall be calculated for the fuel mixture of existing 0.105 wt% fuel and the new 0.05 wt% fuel using the methodology described in Appendix G.
- 3.8.3 After the second delivery of additional No. 2 Fuel Oil, the SO₂ emission factor for fuel in each tank is 7.1 lbs per 1,000 gallons (based on a Sulfur content of the new fuel oil supply of 0.105 wt% and an AP-42 SO₂ emission factor of 142S, where S is the weight percent of sulfur in the fuel, and assuming the total sulfur contribution of any of the remaining 0.105 wt% fuel to the mixture is negligible).

No. 2 Fuel Oil usage and the appropriate SO₂ emission factor shall be used to determine monthly SO₂ emissions using the equation listed in Condition 3.1. Records of the calculations shall be maintained for Division inspection upon request.

First Issued: December 1, 1998

SECTION III - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D. & XIII.B; § 25-7-114.4(3)(a), C.R.S.

1. **Specific Non-Applicable Requirements**

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modifications or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Applicable Requirement	Justification
Facility-Wide	40 CFR Part 60, Subpart Dc – New Source Performance Standards for Small Industrial- Commercial-Institutional Steam Generating Units, as adopted by reference in Colorado Regulation No. 6, Part A	Boilers were existing sources as of the applicable date of Subpart Dc
	Section 112(j) of the Federal Act	Facility is a minor HAP source.
	CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	Facility is a minor HAP source.

General Conditions 2.

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

- 2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;
- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;

Operating Permit 96OPBO174 Renewed: August 1, 2003 & August 1, 2010

- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to §25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;
- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

None.

First Issued: December 1, 1998

SECTION IV - General Permit Conditions (ver 7/21/2009)

1. **Administrative Changes**

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. **Certification Requirements**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution b. Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- Compliance certifications shall contain: c.
 - the identification of each permit term and condition that is the basis of the certification; (i)
 - (ii) the compliance status of the source;
 - whether compliance was continuous or intermittent; (iii)
 - (iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental d. Protection Agency at the addresses listed in Appendix D of this Permit.
- If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the e. permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. **Common Provisions**

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II.E., II.F., II.I, and II.J

a. To Control Emissions Leaving Colorado

> When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

Operating Permit 96OPBO174 First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010 b. **Emission Monitoring Requirements**

> The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

> The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- (i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- (i) Sampling ports adequate for test methods applicable to such facility;
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- Utilities for sampling and testing equipment. (iv)

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Operating Permit 96OPBO174 First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010 Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

Note that until such time as the U.S. EPA approves this provision into the Colorado State Implementation Plan (SIP), it shall be enforceable only by the State.

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

- (i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;
- (ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;
- (iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;
- (iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
- (v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;
- (viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and
- (x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

Operating Permit 96OPBO174

First Issued: December 1, 1998

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance:
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.
- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:
 - (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and
 - (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Operating Permit 96OPBO174 First Issued: December 1, 1998

The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. **Emergency Provisions**

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.E

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence

- an emergency occurred and that the permittee can identify the cause(s) of the emergency; a.
- b. the permitted facility was at the time being properly operated;
- c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

6. **Emission Controls for Asbestos**

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8. Part B. "asbestos control."

7. **Emissions Trading, Marketable Permits, Economic Incentives**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. **Fee Payment**

C.R.S §§ 25-7-114.1(6) and 25-7-114.7

- The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% a. per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.
- The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the b. Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.

Operating Permit 96OPBO174 First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010 The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

9. **Fugitive Particulate Emissions**

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. **Inspection and Entry**

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is a. conducted, or where records must be kept under the terms of the permit;
- have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit; b.
- inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), c. practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

Minor Permit Modifications 11.

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. **New Source Review**

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

Operating Permit 96OPBO174 First Issued: December 1, 1998

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.- II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

"Prompt" is defined as follows:

First Issued: December 1, 1998

- Any definition of "prompt" or a specific timeframe for reporting deviations provided in an underlying applicable a. requirement as identified in this permit; or
- Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of b. deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;
 - (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and
 - (iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.
- If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone c. (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. [Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.] A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

"Prompt reporting" does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. **Record Keeping and Reporting Requirements**

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
 - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
 - date(s) on which analyses were performed; (ii)
 - (iii) the company or entity that performed the analysis;
 - (iv) the analytical techniques or methods used;
 - the results of such analysis; and (v)
 - (vi) the operating conditions at the time of sampling or measurement.
- The permittee shall retain records of all required monitoring data and support information for a period of at least five b. (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.
- Permittees must retain records of all required monitoring data and support information for the most recent twelve c. (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.

Operating Permit 96OPBO174 First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010

- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering e. any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. **Reopenings for Cause**

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.
- The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a c. shorter notice may be provided in the case of an emergency.
- d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

First Issued: December 1, 1998

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

a. For sources located in an ozone non-attainment area or the Denver Metro Attainment Maintenance Area, all storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

First Issued: December 1, 1998

- b. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.
- c. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

First Issued: December 1, 1998

OPERATING PERMIT APPENDICES

- A INSPECTION INFORMATION
- **B MONITORING AND PERMIT DEVIATION REPORT**
- C COMPLIANCE CERTIFICATION REPORT
- D NOTIFICATION ADDRESSES
- **E-PERMIT ACRONYMS**
- F PERMIT MODIFICATIONS
- G CALCULATIONS FOR NO. 2 FUEL OIL

*DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010

APPENDIX A - Inspection Information

1. Directions to Plant:

The facility is located at 600 30th Street in Boulder, Colorado

2. Safety Equipment Required:

Eye Protection, Safety Shoes, and Hearing Protection.

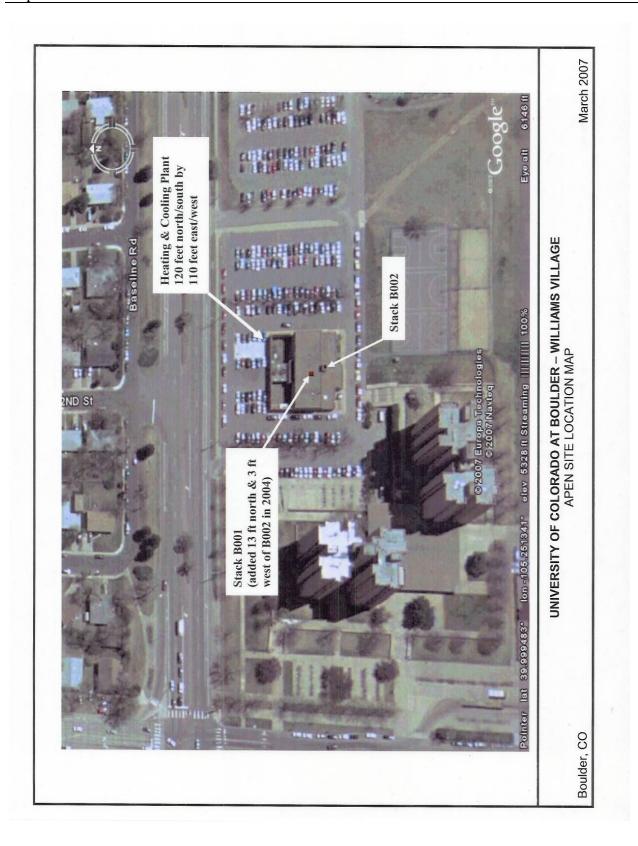
3. Facility Plot Plan:

The attached Figure (following page) shows the site location map as submitted in the Operating Permit Renewal Application received July 27, 2007.

4. List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Two (2) Fuel Oil Storage Tanks, each with a 20,000 gallon capacity to store no. 2 fuel oil. Landscaping and site housekeeping devices equal to or less than 10 hp in size Chemical Storage tanks or containers that hold less than 500 gallons, and which have a daily throughput less than 25 gallons



APPENDIX B

Reporting Requirements and Definitions

with codes ver 2/20/07

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- (A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported "promptly")

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit

Operating Permit 96OPBO174

First Issued: December 1, 1998

requirements, including those attributable to malfunctions as defined in this Appendix, the probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, "malfunction" shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- (2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;
- (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,
- (4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

1 = Standard: When the requirement is an emission limit or standard 2 = Process: When the requirement is a production/process limit

3 = Monitor: When the requirement is monitoring **4 = Test:** When the requirement is testing

5 = Maintenance: When required maintenance is not performed
 6 = Record: When the requirement is recordkeeping
 7 = Report: When the requirement is reporting

8 = CAM: A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the

Compliance Assurance Monitoring (CAM) Rule) has occurred.

9 = Other: When the deviation is not covered by any of the above categories

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Operating Permit 96OPBO174

First Issued: December 1, 1998

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification; 1.1.1
- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

an exception and/or special circumstances relating to that same event.

First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010

For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes

Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

Under the Emergency provisions of Part 70 certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Operating Permit 96OPBO174 First Issued: December 1, 1998

Monitoring and Permit Deviation Report - Part I

- 1. Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.
- 2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: University of Colorado	at Boulder – Williams Village
OPERATING PERMIT NO: 96OPBO174	
REPORTING PERIOD:	(see first page of the permit for specific reporting period and dates)

Operating Permit Unit		Deviation During P		Deviation Code 2	Condition	n/Emergency n Reported g Period?
ID	Unit Description	YES	NO		YES	NO
Facility-Wide Emission Limits						
B001	Babcock and Wilcox Boiler, S/N: Natl. Board 22030 Co. State 15577					
B002	Babcock and Wilcox Boiler, S/N: Nat'l Board 23144 Co. State 18651					
General Conditions						
Insignificant Activities						

¹ See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

1 = Standard: When the requirement is an emission limit or standard 2 = Process: When the requirement is a production/process limit

3 = Monitor: When the requirement is monitoring 4 = Test: When the requirement is testing

5 = Maintenance: When required maintenance is not performed
 6 = Record: When the requirement is recordkeeping
 7 = Report: When the requirement is reporting

8 = CAM: A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the

Compliance Assurance Monitoring (CAM) Rule) has occurred.

9 = Other: When the deviation is not covered by any of the above categories

First Issued: December 1, 1998 Renewed: August 1, 2003 & August 1, 2010

² Use the following entries, as appropriate

Monitoring and Permit Deviation Report - Part II

FACILITY NAME: University of Colorado OPERATING PERMIT NO: 96OPBO174 REPORTING PERIOD:	o at Boulder – Willi	ams Village	
Is the deviation being claimed as an:	Emergency	_ Malfunction_	N/A
(For NSPS/MACT) Did the deviation occur during:	Startup	Shutdown	Malfunction
	Normal Operation		
OPERATING PERMIT UNIT IDENTIFICATION:			
Operating Permit Condition Number Citation			
Explanation of Period of Deviation			
Duration (start/stop date & time)			
Action Taken to Correct the Problem			
Measures Taken to Prevent a Reoccurrence of the Pr	<u>roblem</u>		
Dates of Malfunctions/Emergencies Reported (if app	<u>plicable)</u>		
Deviation Code	Division Code QA:		
	E ON THE NEXT		

EXAMPLE

FACILITY NAME: Acme Corp. OPERATING PERMIT NO: 96OPZZXXX REPORTING PERIOD: 1/1/04 - 6/30/06				
Is the deviation being claimed as an:	Emergency	Malfunction _	XX	N/A
(For NSPS/MACT) Did the deviation occur during:	Startup Normal Operation			tion
OPERATING PERMIT UNIT IDENTIFICATION:				
Asphalt Plant with a Scrubber for Particulate Contro	l - Unit XXX			
Operating Permit Condition Number Citation				
Section II, Condition 3.1 - Opacity Limitation				
Explanation of Period of Deviation				
Slurry Line Feed Plugged				
<u>Duration</u>				
START- 1730 4/10/06 END- 1800 4/10/06				
Action Taken to Correct the Problem				
Line Blown Out				
Measures Taken to Prevent Reoccurrence of the Pro	<u>blem</u>			
Replaced Line Filter				
Dates of Malfunction/Emergencies Reported (if appl	icable)			
5/30/06 to H. Solo, APCD				
Deviation Code	Division Code QA:			

Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

FACILITY IDENTIFICATION NUMBER:	
	: 0130019
PERMIT NUMBER: 96OPBO174	
REPORTING PERIOD:	(see first page of the permit for specific reporting period and dates
	ual Deviation Reports must be certified by a responsible official a art A, Section I.B.38. This signed certification document must b ted.
STATEMENT OF COMPLETENESS	
8	submitted in its entirety and, based on information and belie y that the statements and information contained in this submitta
1-501(6), C.R.S., makes any false materia	ate that any person who knowingly, as defined in Sub-Section 18 al statement, representation, or certification in this document i unished in accordance with the provisions of Sub-Section 25-
Printed or Typed Name	Title
Printed or Typed Name Signature of Responsible	

Operating Permit 96OPBO174

First Issued: December 1, 1998

APPENDIX C

Required Format for Annual Compliance Certification Reports

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: University of Colorado at Boulder – Williams Village

OPERATING PERMIT NO: 960PBO174 REPORTING PERIOD:

I. Facility Status

During the entire reporting period, this source was in compliance with ALL terms and conditions cor	ntained
in the Permit, each term and condition of which is identified and included by this reference. The met	thod(s)
used to determine compliance is/are the method(s) specified in the Permit.	

With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported ¹		Monitoring Method per Permit? ²		Was compliance continuous or intermittent? ³		
ID		Previous	Current	YES	NO	Continuous	Intermittent	
Facility- Wide Emission Limits								
B001	Babcock and Wilcox Boiler, S/N: Natl. Board 22030 Co. State 15577							
B002	Babcock and Wilcox Boiler, S/N: Nat'l Board 23144 Co. State 18651							
General Conditions								
Insignificant Activities ⁴								

Operating Permit 96OPBO174

First Issued: December 1, 1998

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

First Issued: December 1, 1998

¹ If deviations were noted in a previous deviation report, put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

² Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

³ Note whether the compliance status with each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

⁴Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II.	Statu	s for Accidental	Release Pr	revention	Program:									
	A.	This facility Release Preve			et tion 112(r)							of the A	Accide	ental
	В.	If subject: The requirements of			is		is	not	in	comp	oliance	with	all	the
			Manager oriate authoriate		or the desig									the
III.	Certi	fication												
Color the do	ado Re ocumen e revi nable i	ion for the Annu gulation No. 3, leads to being submitted this certification, I certified complete.	Part A, Se ed.	ction I.B.s	38. This s irety and,	igned o	certif d on	icatio	on do rmat	cumen	t must b	oe pack ef forn	aged v	with ofter
C.R.S	S., mak	that the Colora es any false ma or and may be p	terial stat	tement, re	epresentat	ion, or	r cert	tificat	tion i	n this	docum	ent is g		
		Printed or Typ	oed Name								Titl	e		
		Signature									Date	Signed		
		mpliance certificati addresses listed in A				ollution	Contr	rol Div	ision	and to t	the Envir	ronmenta	1 Prote	ction

APPENDIX D

Notification Addresses

1. **Air Pollution Control Division**

Colorado Department of Public Health and Environment Air Pollution Control Division Operating Permits Unit APCD-SS-B1 4300 Cherry Creek Drive S. Denver, CO 80246-1530

ATTN: Jim King

2. United States Environmental Protection Agency

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice Mail Code 8ENF-T U.S. Environmental Protection Agency, Region VIII 1595 Wynkoop Street Denver, Colorado 80202-1129

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance Air and Radiation Programs, 8P-AR U.S. Environmental Protection Agency, Region VIII 1595 Wynkoop Street Denver, Colorado 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit

CAA - Clean Air Act (CAAA = Clean Air Act Amendments)
CCR - Colorado Code of Regulations

CEM - Continuous Emissions Monitor CF - Cubic Feet (SCF = Standard Cubic Feet)

CFR - Code of Federal Regulations

CO - Carbon Monoxide

COM - Continuous Opacity Monitor CRS - Colorado Revised Statute

EF - Emission Factor

EPA - Environmental Protection Agency
FI - Fuel Input Rate in Lbs/mmBtu

FR - Federal Register

G - Grams Gal - Gallon

GPM - Gallons per Minute HAPs - Hazardous Air Pollutants

HP - Horsepower

HP-HR - Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)

LAER - Lowest Achievable Emission Rate

LBS - Pounds
M - Thousand
MM - Million

MMscf - Million Standard Cubic Feet

MMscfd - Million Standard Cubic Feet per Day

N/A or NA - Not Applicable NOx - Nitrogen Oxides

NESHAP - National Emission Standards for Hazardous Air Pollutants

NSPS - New Source Performance Standards
P - Process Weight Rate in Tons/Hr

PE - Particulate Emissions PM - Particulate Matter

PM₁₀ - Particulate Matter Under 10 Microns

PTE - Potential To Emit

RACT - Reasonably Available Control Technology

SCC - Source Classification Code

SCF - Standard Cubic Feet

SIC - Standard Industrial Classification

 SO_2 - Sulfur Dioxide TPY - Tons Per Year

TSP - Total Suspended Particulate VOC - Volatile Organic Compounds

APPENDIX F

Permit Modifications

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION

First Issued: January 1, 1999

Renewed: October 1, 2005 & August 1, 2010

APPENDIX G

Calculations for No. 2 Fuel Oil

Determining the Sulfur Content for a Mixture of No. 2 Fuel Oils

The following equations may be used to calculate the sulfur content of a mixture of existing fuel oil (at 0.105 wt% sulfur) and a new delivery of fuel oil meeting the 0.05 wt% sulfur limit.

For each 20,000 gallon fuel oil tank:

Sulfur in Mixture (lb) =7.05 lb/gal \times (Existing Fuel Volume *(0.00105)+New Fuel Volume *(0.0005))

Weight Fraction of Sulfur in Mixture =
$$\frac{\text{Sulfur in Mixture (lb)}}{\text{Total Mixture Volume (gallons)}} \times \frac{7.05 \text{ lb}}{\text{gallon}}$$

wt% Sulfur = Weight Fraction of Sulfur in Mixture * 100

Note: 7.05 lb/gal is the density of Distillate Oil listed in AP42, Appendix A, 9/1985.

Example Calculation: Regulation No. 1 SO₂ Limit Compliance Demonstration

$$SO_{2}Emission \ Factor \ \left(\frac{lb}{MMBtu}\right) = \frac{SO_{2}Emission \ Factor \ \left(\frac{lb}{1000 \ gal}\right)}{Fuel \ Oil \ Heat \ Value \ \left(\frac{Btu}{gal}\right)} \times \left(\frac{10^{6} Btu}{MMBtu}\right)$$

For the existing fuel source, the SO₂ emission factor is 14.91 lb/1000 gallon and the fuel heat value is 131,622 Btu/gal

For new fuel deliveries meeting the 0.05 wt% sulfur limitation, the SO_2 emission factor is 7.1 lb/1000 gallon and the fuel heat value is assumed to be at least 15,500 Btu/gallon.

For mixtures of existing fuel and new fuel deliveries meeting the 0.05 wt% sulfur limitation, the SO_2 emission factor is assumed to be between 7.1 and 14.91 lbs/1000 gallon, and the fuel heat value is assumed to be at least 15,500 Btu/gallon.

First Issued: January 1, 1999

Renewed: October 1, 2005 & August 1, 2010